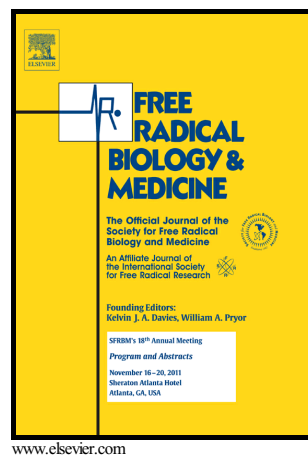


Sixty years old is the breakpoint of human frontal cortex aging

Rosanna Cabré, Alba Naudí, Mayelin Dominguez-Gonzalez, Victòria Ayala, Mariona Jové, Natalia Mota-Martorell, Gerard Piñol-Ripoll, Maria Pilar Gil-Villar, Montserrat Rué, Manuel Portero-Otín, Isidre Ferrer, Reinald Pamplona



PII: S0891-5849(16)31097-8
DOI: <http://dx.doi.org/10.1016/j.freeradbiomed.2016.12.010>
Reference: FRB13116

To appear in: *Free Radical Biology and Medicine*

Received date: 25 July 2016
Revised date: 18 November 2016
Accepted date: 7 December 2016

Cite this article as: Rosanna Cabré, Alba Naudí, Mayelin Dominguez-Gonzalez, Victòria Ayala, Mariona Jové, Natalia Mota-Martorell, Gerard Piñol-Ripoll, Maria Pilar Gil-Villar, Montserrat Rué, Manuel Portero-Otín, Isidre Ferrer and Reinald Pamplona, Sixty years old is the breakpoint of human frontal cortex aging, *Free Radical Biology and Medicine*, <http://dx.doi.org/10.1016/j.freeradbiomed.2016.12.010>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Sixty years old is the breakpoint of human frontal cortex aging

Rosanna Cabré^{a,1}, Alba Naudi^{a,1}, Mayelin Dominguez-Gonzalez^b, Victòria Ayala^a, Mariona Jové^a, Natalia Mota-Martorell^a, Gerard Piñol-Ripoll^c, Maria Pilar Gil-Villar^c, Montserrat Rué^d, Manuel Portero-Otín^a, Isidre Ferrer^{b,c}, Reinald Pamplona^{a*}

^aDepartment of Experimental Medicine, University of Lleida-Institute for Research in Biomedicine of Lleida (UdL-IRBLleida), E-25198 Lleida, Spain

^bInstitute of Neuropathology, Department of Pathology and Experimental Therapeutics, University of Barcelona, E-08908 L'Hospitalet de Llobregat, Barcelona, Spain

^cNeurology Division, Hospital Santa Maria of Lleida, E-25006 Lleida, Spain

^dDepartment of Basic Medical Sciences, University of Lleida-Institute for Research in Biomedicine of Lleida (UdL-IRBLleida), E-25198 Lleida, Spain

rosanna.cabre@mex.udl.cat

alba.naudi@mex.udl.cat

mdominguezg@idibell.cat

victoria.ayala@mex.udl.cat

mariona.jove@udl.cat

natalia.mota@mex.udl.cat

gpinol@gss.scs.es

mapi.gil.villar@gmail.com

montse.rue@cmb.udl.cat

manuel.portero@mex.udl.cat

8082ifa@gmail.com

reinald.pamplona@mex.udl.cat

^eCenter for Biomedical Research on Neurodegenerative Diseases (CIBERNED), ISCIII, Spain

***Corresponding authors:** Departament de Medicina Experimental, Universitat de Lleida-Institut de Recerca Biomedica de Lleida (IRBLleida), Edifici Biomedicina 1, Av. Alcalde Rovira Roure-80, Lleida 25198, Catalonia, Spain. Tel.: (+34)973702442

Abstract

Human brain aging is the physiological process which underlies as cause of cognitive decline in the elderly and the main risk factor for neurodegenerative diseases such as Alzheimer's disease. Human neurons are functional throughout a healthy adult lifespan, yet the mechanisms that maintain function and protect against neurodegenerative processes during aging are unknown. Here we show that protein oxidative and glycoxidative damage significantly increases during

¹ These authors have contributed equally to this work

Download English Version:

<https://daneshyari.com/en/article/5502203>

Download Persian Version:

<https://daneshyari.com/article/5502203>

[Daneshyari.com](https://daneshyari.com)